

AMENDMENTS TO THE CLAIMS

Original claims 1-26 are canceled, and new claims 27-51 are added. A complete listing of the claims in this case, with their status, is shown below.

1.-26. (Cancelled)

27. (New) A polynucleotide adjuvant composition comprising:

a polyriboinosinic-polyribocytidylic acid (PIC),
an antibiotic, and
a positive ion,

wherein the composition contains polynucleotide adjuvant composition molecules heterogeneous for at least one of molecular weight or size, wherein the molecular weight is in a molecular weight range of from about 66,000 to 1,200,000 Daltons and wherein the size is in a molecular size range of from about 6.4 to 24.0 Svedbergs.

28. (New) The polynucleotide adjuvant composition of claim 27, wherein the molecular weight range is from about 300,000 to 1,200,000 Daltons or the molecular size range is from about 12.8 to 24.0 Svedbergs.

29. (New) The polynucleotide adjuvant composition of claim 27, wherein the molecular weight range is from about 66,000 to 660,000 Daltons or the molecular size range is from about 6.4 to 18.3 Svedbergs.

30. (New) The polynucleotide adjuvant composition of claim 27, wherein the molecular weight range is from about 300,000 to 660,000 Daltons or the molecular size range from about 12.8 to 18.3 Svedbergs.

31. (New) A polynucleotide adjuvant composition comprising:

a polyribonucleosinic-polyribocytidylic acid (PIC),
an antibiotic, and
a positive ion,

wherein the polynucleotide adjuvant composition has an average molecular weight equal to or greater than 150,000 Daltons or have an average molecular size equal to or greater than 9.3 Svedbergs.

32. (New) The polynucleotide adjuvant composition of claim 31, wherein the average molecular weight is equal to or greater than 250,000 Daltons or the average molecular size is equal to or greater than 11.8 Svedbergs.

33. (New) The polynucleotide adjuvant composition of claim 31, wherein the average molecular weight is equal to or greater than 350,000 Daltons or the average molecular size is equal to or greater than 15.3 Svedbergs.

34. (New) The polynucleotide adjuvant composition of any of claims 27 to 33, wherein the antibiotic is kanamycin, neomycin, an anthracycline, butirosin sulfate, a gentamicin, hygromycin, amikacin, dibekacin, nebramycin, metrizamide, puromycin, streptomycin, or streptozocin

35. (New) The polynucleotide adjuvant composition of any of claims 27 to 33, wherein the antibiotic is kanamycin, neomycin, an anthracycline, butirosin sulfate, a gentamicin, hygromycin, amikacin, dibekacin, nebramycin, metrizamide, puromycin, streptomycin, or streptozocin and the positive ion is calcium, cadmium, lithium, magnesium, cerium, cesium, chromium, cobalt, deuterium, gallium, iodine, iron, or zinc; and wherein the positive ion is the form of an inorganic salt or an organic complex.

36. (New) The polynucleotide adjuvant composition of any of claims 27 to 33, wherein the antibiotic is kanamycin, neomycin, an anthracycline, butirosin sulfate, a gentamicin, hygromycin, amikacin, dibekacin, nebramycin, metrizamide, puromycin, streptomycin, or streptozocin and the source of positive ions is calcium chloride, calcium carbonate, calcium fluoride, calcium hydroxide, calcium phosphates, or calcium sulfate.

37. (New) The polynucleotide adjuvant composition of any of claims 27 to 33, wherein the antibiotic is kanamycin sulfate and the positive ion is provided by calcium chloride.

38. (New) A kit comprising the polynucleotide adjuvant composition of any of claims 27 to 33 and an antigenic compound, wherein the antibiotic is kanamycin sulfate and the positive ion is provided by calcium chloride.

39. (New) An immunogenic composition comprising the polynucleotide adjuvant composition of any of claims 27 to 33 and an antigen, wherein the antibiotic is kanamycin sulfate and the positive ion is provided by calcium chloride.

40. (New) An immunogenic composition comprising the polynucleotide adjuvant composition of any of claims 27 to 33 and an antigen, wherein the antibiotic is kanamycin sulfate, the positive ion is provided by calcium chloride, and the antigen is a human antigen, a non-human animal antigen, a plant antigen, bacterial antigen, a fungal antigen, a viral antigen, a parasite antigen, or a cancer antigen.

41. (New) An immunogenic composition comprising the polynucleotide adjuvant composition of any of claims 27 to 33 and an antigen, wherein the antibiotic is kanamycin sulfate, the positive ion is provided by calcium chloride, and the antigen is a rabies antigen.

42. (New) An immunogenic composition of claim 41, wherein the antibiotic is kanamycin sulfate, the positive ion is provided by calcium chloride, and the antigen is an inactivated purified rabies antigen.

43. (New) An immunogenic composition comprising the polynucleotide adjuvant composition of any of claims 27 to 33 and an antigen, wherein the antibiotic is kanamycin sulfate and the positive ion is provided by calcium chloride, and wherein polynucleotide adjuvant composition is capable of eliciting an enhanced combined specific humoral and/or cell mediated immune response.

44. (New) An immunogenic composition comprising the polynucleotide adjuvant composition of any of claims 27 to 33 and an antigen, wherein the antibiotic is kanamycin sulfate and the positive ion is provided by calcium chloride, wherein at least one of the adjuvant composition or the immunogenic composition is in a solid form or a liquid form, wherein the liquid form is a solution or a suspension.

45. (New) An immunogenic composition comprising the polynucleotide adjuvant composition of any of claims 27 to 33 and an antigen, wherein the antibiotic is kanamycin sulfate and the positive ion is provided by calcium chloride, and wherein at least one of the adjuvant composition or the immunogenic composition is freeze-dried.

46. (New) A method for enhancing an immune response to an antigenic compound, comprising: administering to a subject a composition comprising an antigenic compound and the polynucleotide adjuvant composition of any of claims 27 to 33, wherein the antibiotic is kanamycin sulfate and the positive ion is provided by calcium chloride.

47. (New) The method of claim 46, wherein said administering is by parenteral injection, intramuscular injection, intraperitoneal injection, intravenous injection, subcutaneous injection, inhalation, rectal delivery, vaginal delivery, nasal delivery, oral delivery, ophthalmic delivery, topical delivery, transdermal delivery or intradermal delivery.

48. (New) A method of making an immunogenic composition, the method comprising: combining an antigen with the polynucleotide adjuvant composition of any of claims 27 to 33 to provide an immunogenic composition.

49. (New) The method of claim 48, wherein the antibiotic is kanamycin sulfate and the positive ion is provided by calcium chloride.

50. (New) The method of claim 48, wherein the immunogenic composition is suitable for enhancing an immune response in a human.

51. (New) The method of claim 48, wherein the immunogenic composition is suitable for enhancing an immune response in an animal.